G. R. S. IX-5]

Previous references.

File No. 86-13

1916.

(Sanitary)

Serial Nos. 29-34

Later references.

GENERAL AND REVENUE SECRETARIAT.

Serial Nos. 29-34

Part B for September 1916.

SUBJECT.

Memo from the Residency forwarding a copy of the Syllabus of the Sanitary Inspectors Training School and a copy of the model rules for the Sanitary Inspectors in the Province of Bihar and Orissa.

To The Sanitary Commr in Cuttack.

No 2001 dt 19.9.16.

Forwards a copy of the Syllabus of the Sanitary Inspectors Training School and a copy of the model rules for the Sanitary Inspectors in the Province of Bihar & Orissa

W D 86—GPB—50,000—24-7-16

Mukherjee 30/10/16

G. R. S. 11] 1915-16

GENERAL AND REVENUE SECRETARIAT.

(Sanitary)

NOTES.

File No. 86-13

FILE HEADING.

Reorganisation of the public Health Department.

From

From the Joint Assistant to the Health to Resident in Mysore

No. 4097 Dated 10.6.16 Received 13.6.16

Diary No. 4426 | Enclos. 2 Spare Copies. | Serial No. 29

BRIEF ABSTRACT OF LETTER.

Forwards for information a copy of the syllabus of the Sanitary Inspectors' Training School and a copy of the Model Rules for the Sanitary Inspectors in the province of Bihar & Orissa.

NOTES AND ORDERS.

A set of orders issued by the several Government relating to the Sanitary Department was called for from the Residency, in connection with the question of reorganisation of the public Health Department in the State.

* Sp. approved the syllabus will be forwarded to the

NOTES—First Sheet.

G. R. S. 12]

General and Revenue Secretariat.

Sm File No. 8b of 1913-16

2

Serial No.	
	Sanitary Commr for personal return.
	Ex 14-17/6 16.6.16
	3) Gen Br 21-6-16
	4) Draft submitted Ex 20.6.16 Bde 22/6
	5) Secy 28/6-16
30	6) To the Sanitary Commissioner. No. 11 dy 3-7-16. forwards the enclosures received with Sl. 29 for personal return.
31	From the Sanitary Commissioner, No. H.C 12-29 1/16 Returns the copy of the syllabus of the Sanitary Inspectors' training school and the copy of the Model Rules for Sanitary Inspectors in the province of Bihar & Orissa and requests that a copy of each may be obtained for reference and record in this office. Submitted with draft. Ex 4.8.16 Bde 7/8 Secy 8/8-16
32	7/8 Do, the 1st Asst to the Hon'ble the Revenue Member (Sd) 8/8/16 Requests the favour of obtaining for the use of the Bureau an additional copy of the syllabus of the Sanitary Inspectors' training school & a copy of Model rules for Sanitary Inspectors in the province Bihar & Orissa.

NOTE—Contn. sheet.

GPB—70,000—17-12-15

G. R. S. 12]

General and Revenue Secretariat.

Sm File No. 81 of 1913-16

Serial No.	
33	From the First Asst to the Health Officer in Mysore No. 620 dt 4.9.16 Forwards an additional copy of the syllabus called for in serial No. 32. Submitted with draft of reply for orders 5.9.16 7/9 Issue 12/9-16
34	To The Sanitary Commr in Ootacamund No. 2001 dt. 19.9.16 Forwards a copy of the rules referred to in serial 31

NOTE—Contn. sheet.

GPB—70,000—17-12-15

D 4426 Jan 86-13-29

Letter No. 7238 M, dated the 30th May 1916, from the Under Secretary to the Government of Bihar and Orissa, to the Hon'ble the Resident in Mysore.

With reference to the correspondence resting with this office letter No. 6645-M, dated the 17th May 1915, I am directed to forward, for the information of the Mysore Durbar a copy of the syllabus ofthe Sanitary Inspectors' Training School and a copy of the Model Rules for the Sanitary Inspectors in this Province.

2. The question of the Sanitary Survey of the Province is still under consideration.

No. 4097

Mysore Resident's Office,
Bangalore, 10 June 1916.

A copy of the foregoing letter, with enclosures, is forwarded to the Government of His Highness the Maharaja of Mysore in continuation of endorsement No. 3825, dated the 31st May 1915.

First Assistant Resident.

Enc. to Sanj 86-13-29

GOVERNMENT OF BIHAR AND ORISSA.

MUNICIPAL DEPARTMENT.

SANITATION BRANCH.

RESOLUTION.

No. 12770M.

Ranchi, the 30th September 1915.

READ—

The Proceedings of a Committee held at Bankipore on January 25th, February 1st and February 2nd, 1915, to consider the curriculum of the Sanitary Inspectors' Training School at Gulzarbagh.

In the year 1912 the Government of India addressed the Local Government on the subject of the organization of a service of trained Sanitary Inspectors for employment by local bodies in Bihar and Orissa. A school was opened at Gulzarbagh in November 1913 for training the officers in question, but, as experience showed that the curriculum and the period and manner of training originally prescribed were unsatisfactory, a Committee consisting of the Director of Public Instruction, the Sanitary Commissioner, Mr. Inglis, Chairman of the Patna Municipality, and Mr. Barron, Assistant Sanitary Engineer, with Mr. Blair as Secretary, met in January last to consider what modifications were required. The Committee considered the subject with great care and the Lieutenant-Governor in Council is largely indebted to their report for the decisions at which he has arrived.

2. The School, which will remain at its present site at Gulzarbagh, will be placed under a Board of Control, consisting of—

The Sanitary Commissioner, *President*;

The Sanitary Engineer;

The Chairman of the Patna Municipality;

The Director of Public Instruction;

with the Superintendent of the School as Secretary to the Board, but not as a member. The Board will be responsible to the Local Government for such matters as the curriculum, the examinations, the number of students to be enrolled annually and their recruitment, and the control of the school generally.

3. The teaching staff, who will be appointed by the Lieutenant-Governor in Council on the advice of the Board of Control, will consist of a Superintendent and an Assistant Superintendent, or Demonstrator. The qualifications of the former will be those of a Health Officer of the 2nd class. It is essential that he should have had previous sanitary experience. His salary will be the pay of his grade with a deputation allowance of ¼th of his pay, and he will be given free quarters. The Assistant Superintendent, or Demonstrator, must hold the certificate of an Overseer who has had practical experience as a Sanitary Inspector, and will receive the pay of his grade, with Rs. 15 a month local allowance.

4. All candidates for admission, except those already in the employ of a Municipality or a District Board in the conservancy or engineering branch, will be required to have passed the Sub-Overseer Examination, or the Matriculation Examination, or some other examination recognized by the Local Government as equivalent thereto, or to have undergone two years' training at the Bihar School of Engineering. Ordinarily preference will be given to Municipal employés and to those candidates who have passed the Sub-Overseer Examination. There will be, in addition, a qualifying entrance examination for all candidates. This examination will consist of both an oral

and a written test. The Sanitary Commissioner will advertise for candidates for admission every year in the *Bihar and Orissa Gazette*, and persons desiring to apply must send in their names to the Superintendent of the Sanitary School before the 1st of October. The application should state the age, name, caste, residence, qualifications, and present appointment (if any) of the candidate, and must be accompanied by the following certificates:—

(*a*) A certificate of domicile in Bihar and Orissa.

(*b*) A certificate that the candidate has passed the Sub-Overseer Examination, or the Matriculation Examination of an Indian University, or an examination recognized by the Local Government as equivalent thereto, or has attended a two years' course at the Bihar School of Engineering.

NOTE.—This certificate will not be insisted on in the case of persons who have been employed for at least five years in sanitary work by Municipalities or District Boards.

(*c*) A certificate of good character from the head of the institution in which the applicant was last educated, or a certificate of good character from the candidate's employer. In the case of a candidate already in Municipal or District Board employ a certificate must be furnished from the Chairman of the Municipality or District Board to the effect that the candidate possesses such general qualifications and personal qualities as to justify his selection for the course of training.

(*d*) A certificate of health from a recognized practitioner.

Applicants for admission to the school who are not already in Municipal or District Board employ in either the conservancy or the engineering branch, must be below 25 years of age, and of good physique.

5. The course will consist of two parts, each of which will last for about five months, Part I from November to March and Part II from June to October. The subjects that will be taught in each part of the course are given in the Appendix to this Resolution, but may be changed under the orders of the Board of Control. At the end of the course for Part I an examination will be held, after which candidates who have passed it successfully will be granted a certificate in Form A (appended) qualifying them as Sanitary Inspectors of the second class. The certificate will be signed by the Sanitary Commissioner. Sanitary Inspectors of the second class desirous of qualifying as Sanitary Inspectors of the first class must also take Part II of the course but no candidate will be allowed to take this part in the same year as Part I, unless he has passed the Sub-Overseer examination, or is able to satisfy the Board of Control that he has had sufficient practical experience to assimilate Part II of the course. Other candidates will be required to spend an interval of a year or more in some practical employment within the Province under Government supervision. On submitting a certificate from their employers that they have satisfactorily performed their duties during this period, they may be admitted to Part II of the course. At the end of the course for Part II an examination will be held, the successful candidates in which will be granted a certificate in Form B (appended) qualifying them as Sanitary Inspectors of the first class. The certificates will be signed conjointly by the Sanitary Commissioner and the Sanitary Engineer to the Government of Bihar and Orissa.

6. Fees will eventually be charged for the examination, but for the present no charge will be made. Municipal employés while under training will be paid a subsistence allowance of Rs. 40 a month.

7. A hostel is provided for the accommodation of students at Gulzarbagh in which all candidates not specially exempted by the Superintendent, must live while under training. No charge will be made for accommodation in the hostel or for furniture: but candidates will be required when entering the school to deposit Rs. 15 as caution money, which will be returned to them at the end of the course, after deduction of the value of any articles which may have been damaged or lost through their carelessness.

8. Sanitary Inspectors of the first class in the employ of a Municipality or a District Board will receive a pay of Rs. 100 rising to Rs. 150 by annual increment of Rs 5 and Sanitary Inspectors of the second class a pay of Rs. 50—5—100.

By order of the Lieutenant-Governor in Council,

E. L. HAMMOND,

Secretary to Government.

MEMO. Nos. 12771-75M.

Ranchi, the 30th September 1915.

COPY, with copy of the appendices, forwarded to the Sanitary Commissioner, Sanitary Engineer, Bihar and Orissa, Director of Public Instruction, Chairman of the Patna Municipality, Dr. S. N. Tewari, Deputy Sanitary Commissioner, Bihar Circle, for information [and for communication to the Superintendent of the Sanitary Inspectors' Training School at Gulzarbagh, Patna].

By order of the Lieutenant-Governor in Council,

J. L. MERRIMAN,

Offg. Under-Secretary to Government.

MEMO. Nos. 12776-80M.

Ranchi, the 30th September 1915.

COPY, with copy of the appendices, forwarded to all Commissioners of Divisions, for information, and for communication to District Officers and local bodies in their respective divisions.

By order of the Lieutenant-Governor in Council,

J. L. MERRIMAN,

Offg. Under-Secretary to Government.

MEMO. No. 12781M.

Ranchi, the 30th September 1915.

COPY, with copy of the appendices, forwarded to the Financial Department for information, and for communication to the Accountant-General.

By order of the Lieutenant-Governor in Council,

J. L. MERRIMAN,

Offg. Under-Secretary to Government.

APPENDIX A.

Curriculum and Syllabus for the Sanitary Inspectors' Training School, Gulzarbagh.

PART I.—FOR SANITARY INSPECTORS OF THE SECOND CLASS.

Introductory.—The Sanitary Inspector; definition of his duties and responsibilities. The importance of his work. The qualities which go to make a successful Sanitary Inspector. The necessity for cleanliness—personal, domestic, municipa..

1. *Elementary Anatomy and Physiology.*—General structure and functions of the human body. Locomotion, nutrition, secretion and excretion—waste and repair. The system and organs:—circulatory, respiratory, digestive, lymphatic, urinary, nervous and cutaneous. The most obvious characters relating to structure, form, position and function only.

2. *Air, light and dwellings.*—Composition of air and atmosphere; uses and benefits of fresh air; impurities, their sources and effects. Natural and artificial agencies of purifying air—amount of air-space necessary for each person. Temperature, seasons, barometric pressure, rainfall, storms, tropical sunlight, altitude, physiological effects of tropical climate. Natural and artificial light, requirements of light and air in streets and houses. Back-to-back rooms and houses; *cul de sac* courts. Diseases caused by living in insanitary dwellings, dust and excessive dampness; phthisis, pneumonia, bronchitis and other pulmonary diseases; common infectious diseases, small-pox, measles, high infantile mortality; mal-nutrition and debility of children. Tenement houses, lodging houses, sweeper alleys, *kutcha* houses and huts; chief types; sanitary defects; their relation to epidemics; tendency to overcrowding serais, sanitary essentials of proportion between the height of houses and the breadth of streets. Window space; sunlight. Methods of improving insanitary quarters of towns. Requirements in new buildings—model building by-laws. Rules of Education Department as regards air, space, ventilation and lighting of class rooms and hostels; street planning. Natural ventilation and movements of air; common methods of ventilating houses. Inspection of houses—printed schedule, Whitelegge (page 213) Municipal Act, sections 236-248.

3. *Water.*—Water composition, sources, uses—domestic, municipal and trade. Classification and characters of potable waters, qualities of water from different sources. Impurities of water, their origin and classification—organic and inorganic, suspended, dissolved, and gaseous, algae. Diseases caused by using impure and contaminated water, character of water-borne diseases. Importance of pure water in Fairs and Melas. Methods of purification of water for house purposes and for towns. Temporary treatment of water to render it safe for dietetic and other uses. Protection and disinfection of wells and tanks. Collection of samples for chemical and bacteriological examinations. Municipal Act sections 198-200-208, Part VII.

4. *Conservancy.*—Removal and disposal of excremental and other waste matter. The different methods of collection and removal of refuse from houses and streets. The different types of bins, carts, trollies, and other methods of transport; methods of disposal; reclamation of waste land. Methods of collection and removal of nightsoil. Importance of early removal of nightsoil and collections of faecal matter from private and public latrines. Type plans of latrines and urinals, cart and buckets. Nightsoil and pail depots: requirements, plans and methods of working. Disposal of nightsoil: trenching—different methods of trenching, selection of soil and locality; methods of laying out and economically working trenching grounds; cultivation of crops. Provision of water for cleansing of carts and for irrigation. Incineration, requirements, methods of working, suitability for small institutions, plans of incinerators. Danger of well privies and cesspools. Methods of organization and control of conservancy work and staff. Municipal Act, Part IX.

Conservancy depôts.—Bullock and cart sheds, requirements, type plans. Fatal diseases of cattle; their management and treatment. Removal and disposal of the dead. Municipal Act, sections 186-199, 200, 216-219, 224-232, 266-278, Part IX.

5. *Dangerous and offensive trades.*—Control of offensive trades and disposal of their refuse—the nuisances created by them and their abatement. Municipal Act, sections 261-265.

6. *Food and diet.*—General principles and requirements of diet, classification of the more common food stuffs. Their nutrition value.

Meat.—Public slaughter houses. Methods of slaughtering—English and Indian—Value of starving animals. General management and control of slaughter houses and licensing of butchers. Collection and disposal of blood, offal and bones. Their commercial value. Provision for cleansing and washing slaughter-houses, and exclusion of flies and birds and animals. Methods of removing meat from slaughter-houses to market. Meat cart, inspection of meat. Qualities of good meat. Stamping meat for the information of the public. Diseases of animals affecting meat supply.

Private slaughter-houses.—Licensing and control of private slaughter houses and meat shops. Essentials of good private slaughter-houses. Private slaughter-houses for bullocks not permissible.

Meat markets.—Method of control and arrangements for cleansing.

Markets in general.—Arrangements and control under model by-laws.

Milk and cowsheds.—Proper method of keeping cows; disposal of excreta and manure. Overcrowding of cattle in cowsheds. Lighting and ventilation. Practical difficulties in enforcing sanitary improvements in cattle byres. Chief epidemic diseases affecting cattle which may affect man. Tubercle, small-pox, worms, scarlet fever and diphtheria. Question of licensing wholesale vendors of milk and cattle sheds. Protection of milk against infection during conveyance and distribution.

Qualities of good milk.—Danger of bulking milk. Comparison of English and Indian method of using milk. Methods adopted in Calcutta to control the milk supply to the public. Method of pasteurizing and sterilizing milk, (*a*) in bulk for commercial purposes and (*b*) for private consumption. Adulteration of milk and abstraction of cream from milk. English law and procedure in taking samples for analysis, application to Indian conditions. Official standard of good milk (*a*) cows' milk, (*b*) buffaloes' milk. Diseases caused by milk—cholera, typhoid, tubercle, Malta fever (goats' milk) Epidemic diarrhoea. Fermentation, its prevention—model by-laws.

Substances made from milk.—Butter, cheese, *ghi*, *dahi*, etc.

Butter.—Definition, qualities of good butter; adulterated with other fats. Substitution of margarine for butter. Methods of taking samples for analysis.

Ghi.—Definition, adulteration with cocoanut and other oils. Methods of taking samples for analysis.

Sweetmeat shops.—Insanitary conditions of and necessity for improvement and greater cleanliness. Danger of cholera from contamination by flies, cold food. Use of covered glazed boxes with glass shelves for keeping sweetmeats in railway stations.

Fish.—Danger of eating stale fish sold in markets. Legal procedure necessary for the seizure and destruction of fish unfit for human consumption.

Grain.—Importance of improving the sanitary condition of grain shops and stores. Prevention of plague; ratproof, well-lighted godown. Dangers of eating machine-cleaned rice, and rice which has been husked. Beri-beri.

Municipal Act, sections 249-253, 261-265, and Part X.

7. *Infection, Notification, Isolation, Quarantine, Immunity and Disinfection.*—Meaning of the term disinfection and its general principles. Disinfecting agents, sunlight and air, fire, hot air, steam, chemicals. Methods employed to deal with the article to be disinfected.

Sunlight and air.—Dwelling houses; open air rooms, open windows and special action on phthisis.

Boiling water.—Uselessness of ordinary methods of boiling. Resistant spore-forming organisms.

Steam disinfection.—(*a*) Hot air moistened with steam preferable to dry air for clothing, bedding, etc. (*b*) steam disinfectors and sterilizing apparatus, super-heated steam.

Chemical disinfection.—Examples, perchloride of mercury, carbolic acid, chloride of lime, cyllin, lycol, phenyle, permanganate of potash, fumigation, sulphur, chlorine, formalin; method of disinfecting rooms and houses with tobacco and neem leaves. White-washing with lime. Special disinfection applied to plague, cholera, pneumonia, tubercle, etc.

Municipal Act, section 193. Epidemic diseases Act, III of 1897.

8. *Vital Statistics and Registration.*—Importance of registering births and deaths and of maintaining a record of the movements of the people and of all occurrences affecting their health and welfare. Conditions of life and social requirements in England and India. Methods employed in this province for collecting information, (*a*) in municipal areas, (*b*) in rural areas. Methods of verification and inspection. Provisions of the Registration Act and the explanation of them. Municipal Act, sections 346-349.

9. *Personal Hygiene.*—Habits, cleanliness, clothing, exercise.

10. *Mensuration.*—Elementary levelling, surveying, and plotting. Preparation of drawings and sketches. Materials used in engineering works, their uses and character in relation to stability, cleanliness, and economy. The equal importance of good workmanship with good materials, the relation these have to the question of maintenance. The importance of frequent inspection, the immediate remedy of defects.

11. *Surface Drainage.*—Objects of surface drainage. The general principles of design. Different forms and construction of drains in relation to local conditions, their carrying capacity, velocity and cleanliness. The inspection of drains.

12. *Road and pavement construction.*—Materials used for metalling and repair of roads in this province and their sources of supply; construction and repair of metalled roads. The construction of pavements—materials, falls and finish of surface.

13. *Building construction.*—Methods of using building materials and their functions. Plan reading and construction from plans. Suitable soils for building purposes, site aspect, damp proof courses, foundations, walls, roofs. Building materials, bricks, rich, fat and pure lime, hydraulic lime, poor lime, portland cement, sand, surkee; decay of timber—characteristics of well-seasoned timber; "dry rot" and "wet rot"; preservation of timber; metals and alloys; ventilation of building—window and floor space, calculation of cubic space, methods of ventilation applicable to Indian conditions.

14. *Miscellaneous.*—Type plans and construction of latrines, urinals, and slaughter-houses.

PART II.—FOR SANITARY INSPECTORS OF THE FIRST CLASS.

1. The Examination in Part I must be passed before this Part can be taken.

2. *Infectious diseases.*—Bacteriology.

Cholera.—History, cause of epidemics. Pilgrim traffic, fairs and melas. Puri and Gaya, Hardwar, etc. Pilgrim centres, dangerous to the rest of India. Hamburg epidemic of 1880. Puri epidemics. Collieries.

Cause of cholera.—Micro-organism—mode of growth and habitat in the wells, tanks, rivers, bathing ghats and surface water, in food stuffs.

Mode of distribution.—Human agency, incubation period, cholera carriers, cases of choleraic diarrhœa, flies, cold food and cook-houses, Mahaprasad, danger of bathing in and drinking contaminated water, railway traffic, lodging houses and serais and hotels. Danger from infected stools, defæcation on banks of

tanks or rivers and near villages and bathing ghats. Danger of washing dead bodies or clothing and utensils or the clothing of infected patients or contacts in water which may be used for drinking. Dangers of a cholera hospital and flies.

Sanitary precautions to be adopted in the prevention and management of epidemics. Sterilization of water-supplies—permanganate of potash, method of application to wells and tanks. Isolation of patients and contacts, disinfection of stools, and early removal of nightsoil from privies and public latrines, disinfection of rooms and all contaminated articles, calcium chloride, cyllin or phenyle. Incineration of stools and vomit, disinfection of clothing and bedding by sunlight and drying by superheated steam.

Personal prophylaxis.—Washing hands with cyllin or other disinfectant, boiling water for drinking, etc., filter. Dangers of using inadequate filters, aerated water food, dangers of cold food, value of freshly-cooked food. Dangers of contaminating a public pipe water-supply, protection of wells, tanks, and rivers. Importance of enquiring into the history of a case of cholera as soon as a patient comes under observation. Anti-cholera inoculation and transfusion.

Malaria.—History; geographical range; mosquito-malarial theory. Description of the mosquito—life history; anopheline mosquitoes, distinction from other species, breeding places, tanks, wells, streams, drains, burrow pits and excavations, cess pools, etc., rice fields, connection with rainfall and floods. Mode of transfer of the parasite to the human host from the mosquito, symptoms of ague, and their relationship to the life of the parasite. Example of the way by which the disease is conveyed from one place to another and from one person to another; children more easily affected than adults; spleen counts among children as a test of indigenous malaria. Example of places seriously affected with malaria—Eastern Bengal, Panama Gold coast. In this province Purneah, Champaran, terai Shahabad, Puri (Chilka). Sanitary precautions and treatment, quinine, Government quinine, pice-packets and quinine treatment, method of administration to adults and children. Drainage of water-logged areas, drainage of towns, cess pools, privies, hollows, in which the rain water can be lodged. Treatment with kerosine oil emulsion, fish. Danger of living with or near any one infected with the parasite. The use of mosquito nets and mosquito-proof houses. Similar parasites found in other animals—frogs, fish, birds and mammalia. Other diseases carried by mosquitoes and communicable to man, *e.g.*, culex and filaria (Elephantiasis), stegomyia and yellow fever. Supposed danger of Panama canal, and the precautions which are being taken.

Plague.—General history, rat flea, theory of plague rats, Indian species, characters and habits, Mus Rattus, Nesokia Bengalensis, Mus Decumanus, Rat fleas. Means of communication between rats and man. Geographical distribution of plague in this province, with a comparison of the conditions of life in various localities. Influence of grain in carrying the infection from place to place. Seasonal variation of plague: relationship to the breeding season of rats, mortality among rats previous to mortality among human beings. Importance of destroying rats in the intervals between seasons, especially in places where the rats continue to die during the summer and where human plague breaks out early in the cold season. Sanitary measures: erection of rat-proof grain godowns and shops and well-laid masonry drains; removal of dry refuse and rubbish on which rats can feed. Protective measures: evacuation, rat-killing, trapping, smoking *neem* leaves and tobacco, quarantine, disinfection, inoculation, method of disinfecting houses in which people have died of plague, clothing, bedding and effect of sunlight. Pneumonic plague: dangers, extreme infectiousness, precautions; *pestis ambulans.*

Small-pox.—History of small-pox and the introduction of vaccination. Difference between inoculation and vaccination. Government order forbidding inoculation. Compare incidence of small-pox in towns, Leicester and Gloucester and London, and in countries, Germany and England. Mortality from small-pox in India. Means by which small-pox is communicated, by personal contact and air, liability of children to take the disease. Sanitary precautions; vaccination and re-vaccination of contacts. The provisions of the Vaccination Act and explanation of them.

3. *Water supply.*—Objects of providing a supply of good water. The different sources of water for domestic and other uses, and the general character of the waters derived therefrom. Means and general principles of collecting, storing, and distributing water. Detailed instructions on the collection, storage, and distribution of small supplies.

Sources of contamination.—Protection of water from contamination. The inspection of water-works and fittings.

4. *Sewerage.*—Objects of sewerage works. General principles of their design. The distinction between sewerage and drainage. Separate and partially separate systems of sewerage and drainage. Different forms and construction of sewers in relation to local conditions, their carrying capacity, velocity and cleanliness. The ventilation of sewers. The construction and testing of sewers. Sewer flushing. Inspection of sewers.

5. *Sewage disposal and purification.*—Objects to be attained by sewage disposal and purification works. Different methods of sewage disposal and purification generally. Detailed instruction on the best methods for the disposal and purification of small quantities of sewage in relation to the source of the same and the effects of its disposal. Biological method (septic tank and contract beds). Principles of working septic tanks—aerobic and anaerobic action. Type plans of septic tanks, filters and latrines. Disposal of effluent—sewage farms, etc. Sullage collection and disposal of filter trenches, septic tanks, sullage farms, etc. Danger of allowing untreated sewage to come in contact with rivers, streams and tanks used for water-supply.

6. *House Drainage.*—Objects of house drainage. The arrangement of sanitary fittings and drains. Combined and separate systems of drainage for sewage, rain and sub-soil water, materials used for house drainage work, pipes, junctions, inspection chambers, traps. The size, gradient, and construction of drains in relation to their carrying capacity, velocity and cleanliness. Connection of house drains to sewers or tanks. Internal sanitary appliances, their selection, their uses and abuses, their connection to the house drains. Inspection of house drainage and sanitary fittings. Drain flushing.

7. *Miscellaneous.*—Type plans and construction of cowsheads and meat markets, septic tanks, etc.

NOTE TO PARTS I AND II.

Practical Demonstrations.

There should be as many practical demonstrations as possible, and not less than 25 in each part of the course. In addition to these, if necessary, there may be 14 demonstrations outside the station in each part. With the approval of the Board of Control 10 further demonstrations may be outside the Province.

APPENDIX B.

FORM A.

SANITARY INSPECTOR'S CERTIFICATE.

This is to certify that _____

after undergoing a course of lectures and practical instruction, has passed an elementary examination in Hygiene and Sanitary Engineering which was held at Bankipore on the _____ 191 , and that I, the undersigned, consider him to be qualified as a Sanitary Inspector of the Second Class within the Province of Bihar and Orissa.

Sanitary Commissioner, Bihar and Orissa,
President of the Board of Control.

NOTE.—This certificate has been registered in the office of the Sanitary Commissioner, Bihar and Orissa, as No. _____ of 191

APPENDIX C.

FORM B.

SANITARY INSPECTOR'S CERTIFICATE.

This is to certify that _____

a Sanitary Inspector of the Second Class, after undergoing a further course of lectures and practical instruction, has passed a further examination in Hygiene and Sanitary Engineering which was held at Bankipore on the _____ 191 , and that we, the undersigned, consider him to be qualified as a Sanitary Inspector of the First Class, within the Province of Bihar and Orissa.

Sanitary Commissioner, Bihar and Orissa,
President of the Board of Control.

Sanitary Engineer, Bihar and Orissa,
Member of the Board of Control.

NOTE.—This certificate has been registered in the office of the Sanitary Commissioner, Bihar and Orissa, as No. _____ 191

B. & O. G. P. (F. & M.) No. 178—614—2-10-1915—J.M.R.

Encl to Sec 86-13-29

Model Rules for Sanitary Inspectors.

I. Sanitary Inspectors are under the orders of and responsible to the Health Officer, or, where there is no Health Officer, to the Chairman.

II. The duties of a Sanitary Inspector are :—

1. To be thoroughly acquainted with the area, the equipment and the staff under his charge.
2. To see that the work of the staff working under him is properly organized and equally distributed and that the conservancy and other equipment is kept in repair and used to advantage.
3. To supervise the conservancy work in the area allotted to him and to see that it is promptly and properly done.
4. To see during his rounds that the municipal servants are present at their posts and working, and occasionally to be present when the muster is taken.
5. To examine all carts and other municipal equipment and property regularly and to see that they are kept in good repair, clean and well tarred or oiled as the case may be.
6. To visit the municipal cattle-shed frequently and to see that the bullocks are properly fed and cared for.
7. To maintain a diary in the prescribed form in which he must record notes of all his inspections and recommendations and which must be submitted daily to the Health Officer or the Chairman (see rule 1) for orders.
8. To maintain an inspection register in the prescribed form in which he must keep a permanent record of all cases in which orders are passed or action is taken on reports made in his diary either under the municipal or other Act, or departmentally.
9. To see that no unauthorized buildings or encroachments over drains are constructed without being at once reported by him.
10. To report at once any outbreak of epidemic disease in his area.
11. To detect nuisances, breaches of municipal by-laws and the Municipal Act and to report all such promptly.
12. To make regular and frequent inspections of all markets, slaughter-houses, public wells, tanks and other sources of water-supply, public latrines and urinals, drains, trenching-grounds and dumping grounds in his area.
13. To make systematic tours of inspection at regular intervals of all private privies and cesspools, private wells and tanks in his area.
14. To make systematic tours of inspection at regular intervals of all cow-sheds, stables, offensive trades, meat, fish, milk and sweet-meat shops, bakeries, aerated water factories, burning ghats and burying grounds in his area.
15. To report whether the orders passed on his inspections and the judgments decreed in his cases are duly carried out within the prescribed time or not.
16. To attend court in connection with the cases arising in his area, when required to do so by competent authority.

III. Permanent Registers should be prepared in the municipal office and thereafter maintained by the Health Officers and Sanitary Inspectors, in the forms attached, for :—

(1) Private privies.
(2) All wells and tanks.
(3) Cesspools.
(4) Shops. A. Meat.
B. Fish.
C. Milk.
D. Sweetmeat.
(5) Offensive and dangerous trades including butchers.
(6) Cow-sheds and stables.

And also a record of all municipal lands and buildings.

REGISTER OF PRIVATE PRIVIES.

Ward _____

Serial No.	Holding No.	Mohalla.	Street.	Name of occupier.	Type of latrine.	Accessibility.	Notes and references to Inspection Register.
1	2	3	4	5	6	7	8

REGISTER OF WELLS AND TANKS.

*Ward*_____

Serial No.	Holding No.	Mohalla.	Street.	Name of occupier or owner.	Type of well.	Notes and references to Inspection Register.
1	2	3	4	5	6	7

REGISTER OF CESSPOOLS.

*Ward*_____

Serial No.	Holding No.	Mohalla.	Street.	Name of occupier.	Size of cesspool in cubic feet.	Type of cesspool.	Notes and references to Inspection Register.
1	2	3	4	5	6	7	8

REGISTER OF SHOPS

*Ward*_____

Serial No.	Holding No.	Mohalla.	Street.	Name of occupier.	Variety of shop, *i.e.*, meat, fish, milk or sweetmeat.	Notes and references to Inspection Register.
1	2	3	4	5	6	7

REGISTER OF OFFENSIVE TRADES.

Ward _____

Serial No.	Mohalla.	Street.	Name of occupier.	Trade.	Notes and references to Inspection Register.
1	2	3	4	5	6

REGISTER OF STABLES AND COW-SHEDS.

*Ward*_____

Serial No.	Mohalla.	Street.	Name of occupier.	Number of animals.	Type of premises.	Notes and references to Inspection Register.
1	2	3	4	5	6	7

G. R. S. 26]

File No.

Serial No. 30.

Diary No. of letter replied to 4426

No. 11 / San 86-13-30 dy 3.7.16.

General and Revenue Secretariat

(Sanitary

, *the* *191* .)

To

The Sanitary Commissioner

Has the honor to forward herewith for perusal and return a copy of the syllabus of the Sanitary Inspectors Training school and a copy of the Model Rules for the Sanitary Inspectors in the province of Bihar & Orissa.

Date of issue 3.7.16

Signed by Sir B. Subba Rau

By order

for Secretary to Govt.

General Dept

Bks

over.

SUBJECT.

101

18

Office of the Sanitary Commissioner
with the Govt., of Mysore,

No. S. 6. 12-2 of 16-17 Dated, Bangalore, 1st ~~July~~ Aug. 1916.

Rec'd file

Sanitary 86-13-31

From

Rao Bahadur Rajakarya Pravina
T.V.Arumugum Mudaliar Esq., M.B.C.M.,
Sanitary Commissioner to the Govt., of
H.H.the Maharaja of Mysore, Bangalore.

To

D.M.Narasinga Rao Esq., B.A.,B.L.,
Secretary to the Govt., of H.H.the
Maharaja of Mysore, Genl. Deptt., Bangalore

Sir,

I have the honor to return herewith, with thanks, the copy of the syllabus of the Sanitary Inspectors' Training School and the copy of the Model Rules for Sanitary Inspectors received with your No.11 San 86-13-30 dated the 3rd instant and to request that you will be so good as to obtain and forward a copy of each for reference & record in this office.

I have the honor to be,

Sir,

Your most obedient servant,

T.V. Arumugum

Sanitary Commissioner.

GPB—50,000—26-4-15

19

From The Sanitary Commissioner in Mysore Bangalore

2 AUG 1916

To The Secretary to Govt General Dept

Dated 1.8.1916

Despatched

Received

~~General~~ No. G.C. 12-2

No.

Enclosure No. / file

Returning a Copy of Syllabus of the Sanitary Inspectors Training School &c in the Province of Behar & Orissa

(G. R. S. 26]

File No. 8-13

Serial No. 32

Diary No. of letter replied to 440

No. 1 Genl 157

General and Revenue Secretariat
(Sanitary)
, *the* 191

To

The First Assistant to the
Hon'ble the Resident in Mysore

Date of issue 9-8-16

Signed by Asst. Secy.

Sir I beg to acknowledge the receipt of ~~his reference to~~ your Memorandum
Rec. No. 4097 dated the 10th June 1916 & its Enclosure
I am directed to request the favour of
you obtaining for the use of the Sanitary
Inspectors ~~Assistant~~ additional copy of the syllabus
of the Sanitary Inspectors' training scheme
and a copy of the Model rules
for the Sanitary Inspectors in the
Province of Bihar & Orissa.

I have &c.
for Secretary to Govt.
General Dept.

SUBJECT.

GEN. & REV. SEC.
4 SEP

No. 6217

FROM D 829

Pol 41 < 27 S · 9 · 16

MAJOR T. H. ST. GEORGE TUCKER,
FIRST ASSISTANT TO THE RESIDENT IN MYSORE.

7. Ms 86-13-33

To

The Dewan of Mysore.

Dated Bangalore, 4th September 1916.

SIR,

With reference to Mr. Narasinga Rao's letter No. Pol. 157, dated the 9th August 1916, I am directed to forward an additional copy of the Syllabus of the Sanitary Inspector's Training School and of the Model Rules for Sanitary Inspectors in the Province of Bihar and Orissa.

I have the honour to be,

Sir,

Your most obedient servant,

T. St. G. Tucker.

First Assistant Resident.

R. O. 2.—R. P. B.—4-1916.—1,000

G. R. S. 26] 1469

File No. 26
Serial No. 41

Diary No. of letter replied to 821

No. 2001/Sans 86-13-34
dt. 19.9.16

General and Revenue Secretariat
(Sanitary)
, *the* 191 .

Date of issue 20.9.16

Signed by Dr. B. Subba Rao

To

The Sanitary Commissioner

Sir,

With reference to your letter No. G.C 12-2 dated the 18th August 16, I am directed to forward herewith a copy of the syllabus of the Sanitary Inspectors' training school and of the Model rules for Sanitary Inspectors in the province of Bihar & Orissa

I have

for Secretary to Govt.
General Dept

Rec.

over.

SUBJECT.

19/9/19 18/9